

FEB 27 2015

CLERK, U.S. DISTRICT COURT  
WESTERN DISTRICT OF TEXAS  
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MO-13-CV-047

**TOYOTA MOTOR CORP., TOYOTA  
MOTOR SALES, U.S.A., INC., AND  
TOYOTA MOTOR ENGINEERING &  
MANUFACTURING NORTH  
AMERICA, INC.,  
Defendants.**

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on the scene. Plaintiff (sitting in the front passenger seat) and the driver of the Camry were taken to the hospital. Plaintiff was placed in the Intensive Care Unit with several injuries, including a fractured upper and lower tibia.

On May 23, 2013, Plaintiff filed suit against Defendants alleging the following: (1) products liability; (2) negligence; (3) breach of implied warranties; and (4) fraud/misrepresentation/omission. To support her products liability claim, Plaintiff designated Steve Syson to testify regarding the design of the Camry. Defendants then filed their *Daubert* Motion to Exclude the Testimony of Plaintiff's Expert.

#### APPLICABLE LAW

Generally, Federal Rule of Evidence 702 governs admission of expert testimony. This rule requires an expert's testimony to be (1) based upon sufficient facts or data, (2) the product of reliable principles and methods, and (3) reliably applied to the facts of the case. Fed. R. Evid. 702. In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), the Supreme Court set forth factors to assist courts in their evaluation of an expert's testimony; the Court also emphasized the nonexhaustive nature of its listing. *Daubert*, 509 U.S. at 593. *Daubert* suggested a trial judge consider:

1. whether the theory or technique the expert employs is generally accepted;
2. whether the theory has been subjected to peer review and publication;
3. whether the theory can be and has been tested;
4. whether the known or potential rate of error is acceptable; and
5. whether there are standards controlling the technique's operation.

*Id.*; see also *Knight v. Kirby Inland Marine Inc.*, 482 F.3d 347, 351 (5th Cir. 2007). These factors, as noted, are not exhaustive, and district courts are not required "to reinvent the wheel every time expert testimony is offered in court." *Black v. Food Lion*, 171 F.3d 308, 311 (5th Cir. 1999). The

court must “make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 152 (1999).

The party proposing an expert’s testimony has the burden to prove the testimony is admissible by a preponderance of the evidence. *Bourjaily v. United States*, 483 U.S. 171 (1987). The party offering the challenged expert opinions need not, however, prove the testimony is “correct.” *Moore v. Ashland Chem., Inc.*, 151 F.3d 269, 276 (5th Cir. 1998) (en banc). Further, the expert’s testimony must be reliable, and “[t]he reliability analysis applies to all aspects of an expert’s testimony: the methodology, the facts underlying the expert’s opinion, the link between the facts and the conclusion, et alia.” *Knight*, 482 F.3d at 354 (quoting *Heller v. Shaw Indus., Inc.*, 167 F.3d 146, 155 (3d Cir. 1999)). A showing of reliability requires “objective, independent validation of the expert’s methodology.” *Id.* “The expert’s assurances that he has utilized generally accepted scientific methodology is insufficient.” *Id.*; see *General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997) (“nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert”).

### DISCUSSION

Defendants set forth the following arguments regarding Syson’s testimony: (1) Syson’s opinions are not based on objective underlying data; (2) Syson’s opinions regarding alternative designs are unreliable because he has no testing to support them; and (3) Syson is not qualified to provide biomechanical and/or injury causation opinions.

**I. Syson's Opinions and Underlying Data**

Defendants argument regarding underlying data and Syson's opinion is two-fold. First, Defendants assert Syson's opinions regarding the Camry's compartment structure, occupant restraint system, and airbag system are not based on objective underlying data. Specifically, Syson's opinions at issue are the following: 1) the design of the Camry's structure allowed the area around the A-pillar to move inboard into the occupant compartment space; 2) the load limiter displaced too much webbing causing excessive forward occupant excursion; and 3) the Camry's side airbag should have deployed. Second, Defendants contend Syson's conclusion that these above-listed defects caused Plaintiff to strike her head is mere conjecture. The Court will discuss Defendants' second argument below in the paragraph addressing whether Syson is qualified to provide biomechanical and/or injury causation opinions.

**A. Compartment Structure**

As to Defendants' first argument, they assert Syson's opinions regarding the structure of the Camry here are not based on objective data. Defendants point out Syson states in his expert report he did not perform an accident reconstruction in this case. Defendants also contend because Syson did not do any photogrammetry to indicate the depth of crush on the Camry and did not provide a quantitative or qualitative estimate of the amount of survival space that was minimized by the alleged defects, Syson cannot opine how much displacement occurred within the Camry's occupant compartment.

Plaintiffs argue Syson's opinions are based on objective underlying data. Plaintiffs further contend Defendants did not offer any evidence that photogrammetry and accident reconstruction were necessary for Syson's opinions.

The record shows Syson reviewed the results of this accident<sup>1</sup> and compared them with the results of other similar crash tests. Syson Dep. 68:25–69:7. Syson also reviewed the 2010<sup>2</sup> and 2011 Toyota Camry New Car Assessment Program (NCAP)<sup>3</sup> crash tests, structural performance tests for a 2010 Toyota Camry, a 2012 Toyota Camry small overlap frontal crash test and oblique test, and a 2009 Camry-to-Yaris crash test. *Id.* 70:8–11; 74:13–22. Syson did not look at a 2011 Camry frontal offset crash test in this case but has looked at one in the past for other cases. *Id.* 74:1–8. In addition, Syson stated he reviewed the accident report and accident photographs in this case. Syson Report IX.A. Thus, the record shows Syson based his structural opinions here on historical data within the automobile industry and the current report and photographs from this accident. However, the record further shows Syson did no testing of any kind on the 2011 Camry in issue and cannot speak to the actual passenger compartment displacement.

#### **B. Seatbelt System**

As to the seatbelt system, Syson opined the design of the load limiter (relates to extra webbing of seat belt that can be released) resulted in additional seatbelt displacement. However, Defendants argue Syson stated he does not know how much seatbelt displacement actually occurred in the subject crash.

The record shows Syson again looked to historical data regarding the seat belt design; he looked to the NCAP tests and cars with similar seat belt load limits such as Volvo. Syson Dep. 129:21–25, 130:3–5. Syson also reviewed a “virtual mirror image of this accident” in another case

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<sup>1</sup>Syson reviewed the accident report and photographs.

<sup>2</sup>The 2007 through 2011 Camry have the same platform.

<sup>3</sup>The NCAP test standards are developed by the National Highway Traffic Safety Administration (NHTSA).

and what happened with the seat belt load limiter in that case. *Id.* 130:6–20. Syson then adjusted for the other passenger and Plaintiff’s weight difference and opined that because the similar belt in the similar wreck had a least a foot of belt displacement in the accident that the belt in this case had at least some displacement. *Id.* Syson also testified the displacement here would not be 0 inches because the load limit for this seat belt is about 1,000 pounds and in a crash like the one at bar the load limit would reach 1,600 to 1,700 pounds. *Id.* 130:21–131:5. However, Syson did not see the seatbelt system after the accident and did no testing on the 2011 Camry in issue. Therefore, Syson cannot opine about the actual amount of displacement of the seatbelt in this case.

### **C. Airbag**

Syson also opined although the primary impact of the crash occurred on the Camry’s right front corner, the side airbag should have deployed. Defendants argue this opinion is unreliable because Syson provides no analysis outside his opinion.

Again, the record shows Syson relied on historical data and testing for this opinion. Syson Dep. 179:3–180:11. Syson discussed side airbag deployment results in a similar car crash on a 2007 Camry which has the same platform as a 2011 Camry. *Id.* 168:3–20. However, again Syson did no testing on the 2011 Camry in this case.

In sum, although Syson reviewed the accident report and photographs, his opinions are largely based on historical data. Testimony regarding historical research, data, and testing of substantially similar crash tests may survive Rule 702 if the expert possesses sufficiently reliable knowledge of historical research and other industry data. *See Weatherspoon v. Nissan North America, Inc.*, No. 3:07cv24–DPJ–LRA, 2010 WL 606561, at \* (S.D. Miss. Feb. 17, 2010) (allowing testimony regarding historical research, data, and testing of substantially similar warnings in car

accident case). Here, Syson's qualifications regarding knowledge of historical data of car accidents and design defects are not in dispute. Rather, it is the application of that knowledge to the facts in this case which falls short under Rule 702. That is, Syson stated he did no testing in this particular case and could not speak to whether any compartment and seatbelt displacement occurred, if any. As such, Syson's testimony cannot be reliably applied to the facts in this case.

## **II. Syson's Opinions Regarding Alternative Designs**

Throughout Syson's expert report he discusses alternative designs for a different front compartment structure, occupant restraint system, and airbag sensor system that would purportedly allow better crash performance. Defendants argue Syson's opinions regarding the alternative designs are unreliable because he has no testing to support them. Further, Defendants point out Syson did not have the appropriate data from the subject accident to reliably opine his proposed alternative designs would have made a difference in this crash. Plaintiff argues Syson's alternative designs are reliable and details the materials and studies Syson relied upon during his analysis.

"The proper methodology for proposing alternative designs includes more than just conceptualizing possibilities." *Guy v. Crown Equip. Corp.*, 394 F.3d 320, 327 (5th Cir. 2004); *see also GMC v. Sanchez*, 997 S.W.2d 584, 591–92 (Tex. 1999) (holding that more than a "bald assertion" that the alternative design is safer is required). Testing, however, "is not an absolute prerequisite to the admission of expert testimony on alternative designs, but Rule 702 demands that experts adhere to the same standards of intellectual rigor that are demanded in their professional work." *Watkins v. Telsmith, Inc.*, 121 F.3d 984, 990 (5th Cir. 1997). Some courts have previously considered the "use of the proposed design alternative for the same purpose in the same consumer market" when assessing the reliability of expert testimony. *See Std. Fire Ins. Co. v. Broan Nutone*,

LLC, No. 2:07-CV-44-KS-MTP, 2008 WL 5560882 (S.D. Miss. July 1, 2008) (“While it might be the best practice for an expert to actually test the proposed design alternative, omitting this step does not render the expert’s conclusions automatically invalid under the *Daubert* standard.”); *see also Hodges v. Mack Trucks, Inc.*, 474 F.3d 188, 194–95 (5th Cir. 2006); *but see Casey v. Toyota*, 770 F.3d 322, 332 (5th Cir. 2015).

Here, Syson stated his proposed alternative designs had been tested by both Toyota and the Insurance Institute for Highway Safety (IIHS). Thus, Syson stated he did not test his proposed alternative designs because the type of modifications he recommended for the 2011 Camry were previously tested. Syson further stated he drew on 40 years of testing, engineering analysis, peer reviewed papers, studies and data compilation on which to base his alternative designs. As an example, Plaintiff points out in 1979 Syson used the same techniques to reinforce the front structure of the Large Research Safety Vehicle (LRSV) in order to minimize compartment deformation in offset front impact and oblique collisions. Additionally, Syson stated he relied on his own frontal offset test experience and design experience with structural modifications and airbag sensors in frontal offset and oblique collisions. Syson indicated Nissan developed the same type of structural modifications for their cars in 2003 which Syson points to as an alternative design. Finally, while Syson did no exemplar work specifically for this case, he stated he did exemplar work for other cases. Syson Dep. 108:3–8.

Based on the current record, Syson’s opinions are once again based on historical data. Syson did not compare this 2011 Camry structure, occupant restraint system, and airbag system to that of the proposed alternative designs in his report and deposition testimony. Further, as discussed above Syson did no testing to support his conclusion that his proposed alternative designs would have



changed the outcome for the Plaintiff in this accident. *See Casey*, 770 F.3d at 332 (“Texas law expects that an alternative design be tested before a jury can reasonably conclude that the alternative would prevent or reduce the risk of injury.”). Therefore, the Court again finds Syson’s opinions are not reliably applied to the facts of this case.

### III. Syson’s Biomechanical and/or Injury Causation Opinions

Defendants argue Syson should not be allowed to offer opinions regarding Plaintiff’s kinematics and/or injury causation during the subject accident because he is not a biomechanical engineer nor an expert in occupant kinematics. Without specifically mentioning Syson’s kinematics experience, Plaintiff asserts Syson is qualified in all areas in which he offers an opinion. Defendants state they do not dispute Syson’s qualifications as they relate to the Camry’s design; rather, Defendants object to Syson’s qualifications regarding biomechanical and/or injury causation opinions in this case, including Syson’s reference in his expert report regarding Plaintiff’s alleged head injury.<sup>4</sup>

“Trial courts must ensure that those who purport to be experts truly have expertise concerning the actual subject about which they are offering an opinion.” *Gammill v. Jack Williams Chevrolet, Inc.*, 972 S.W.2d 713, 719 (Tex. 1998) (citation omitted). The record shows Syson to be experienced in the field of automotive design analysis and performance engineering, but not in the area of biomechanical engineering. Further, Syson stated he is not a biomechanical engineer and does not

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<sup>4</sup>Defendants argue Syson’s conclusion that Plaintiff struck her head on the A-pillar is mere conjecture. Specifically, Defendants contend there is no physical evidence Plaintiff struck her head on the A-pillar, no medical records in evidence to show Plaintiff has a head injury, and Syson stated he had seen no medical records indicating Plaintiff suffered a head injury. Plaintiff testified in her deposition that an unidentified doctor told her she had a head injury but that she did not have a concussion. Defendants therefore argue the record does not support nor indicate Plaintiff had a head injury and Syson’s opinion that she struck the A-pillar causing a head injury is unreliable.

intend to offer biomechanical opinions at trial. Syson Dep. 33:13–23, 34:15–19. Syson also stated he did not conduct an accident reconstruction in this case, perform any tests, nor see Plaintiff's medical records. Syson Report VIII.A; Syson Dep. 28:4–19. Without performing tests of any kind or reviewing medical records, Syson can not opine about the actual displacement of the structure and seatbelt nor injury causation. Therefore, Syson has not been shown to have expertise that would qualify him to testify about the kinematics and/or cause of Plaintiff's injuries in this accident. *See generally Goodner v. Hyundai Motor Co., Ltd.*, 650 F.3d 1034 (5th Cir. 2011) (noting the district court prohibited the expert from testifying as to the ultimate issue—that the seat recline caused Sarah's injuries—because he was unqualified to reach this conclusion.).

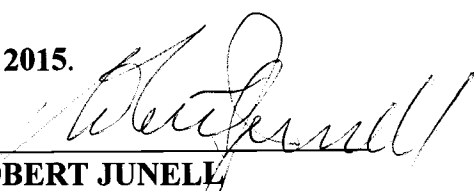
### CONCLUSION

Based on the above-stated analysis, the Court finds Syson's opinions proffered in this case do not survive Rule 702 and his testimony is excluded. Accordingly,

**IT IS ORDERED** that Toyota's Motion to Exclude the Testimony of Plaintiff's Expert Stephen Syson (Doc. No. 61) is hereby **GRANTED**.

**IT IS SO ORDERED.**

**SIGNED** on this 27<sup>th</sup> day of **FEBRUARY, 2015.**

  
**ROBERT JUNELL**  
 Senior United States District Judge  
 Western District of Texas